

MINUTES OF DOT-AGC BRIDGE DESIGN SUBCOMMITTEE MEETING

The DOT-AGC Joint Bridge Design Subcommittee met on September 26th 2001. Those in attendance were:

Tim Rountree	State Bridge Design Engineer (Co-Chairman)
Berry Jenkins	Manager of Highway Heavy Division, Carolinas Branch AGC (Co-Chairman)
Ron Shaw	Lee Construction Company of Carolinas
Michael Dane	Dane Construction, Inc.
Kevin Burns	R. E. Burns & Sons Co.
Ron Hancock	Area Bridge Construction Engineer
Greg Perfetti	Assistant State Bridge Design Engineer
Ricky Keith	Assistant State Bridge Design Engineer
Paul Lambert	Structure Design Project Engineer
Tom Koch	Structure Design Project Engineer
Mohammed Mulla	State Soils and Foundations Engineer
Chris Kreider	Soils and Foundations Engineer
Nilesh Surti	Soils and Foundations Engineer
Rodger Rochelle	Structure Design Project Design Engineer (Secretary)

The following items of business were discussed:

1. The minutes of the July 25, 2001 meeting were accepted.
2. *Standard Shoring Design Update*

Mr. Surti distributed the draft final package of standard shoring to be used as temporary shoring for the maintenance of traffic. The package consisted of a standard drawing, notes, special provision, shoring selection form, and a timeline for soliciting final comments and implementation. In order to implement this package with the December 2001 letting, final comments must be received by October 5th.

A number of issues were addressed including the clarification of when the Contractor may use the standard shoring, the definition of "soft soil", sheet pile installation tolerance, backfill behind lagging, and the standard shoring selection form.

It was suggested that a note be placed at the top of the drawing as well as in the special provision that alerts the contractor to the fact that the standard shoring may not be used when the shoring height exceeds 11 feet, the water table lies above the bottom of the excavation, or the supported slope is steeper than 2:1. Furthermore, if the Soils and Foundation Section knows in advance of the letting that the standard shoring may not be used at a particular site, this restriction will be noted on the Traffic Control Plans.

Mr. Shaw asked who would be responsible for determining whether a soil is "soft". The Resident Engineer, the Area Bridge Construction Engineer, and Soils and

Foundations personnel would coordinate this effort as needed. Mr. Mulla clarified that “soft soil” is essentially soil that you cannot stand on. Mr. Hancock warned that there may be numerous questions about this classification.

The installation tolerance for sheet piles was deemed to be too restrictive and was relaxed considerably. However, a requirement will be added to use interlocking sheeting for these applications.

The Contractors present commented on the difficulty of satisfying the current requirement to compact soil behind lagging. Mr. Mulla emphasized that this effort is necessary to ensure that the supported roadway cannot shift. After considerable discussion, it was decided to require that the Contractor fill the voids behind the lagging with either granular material or compacted excavated material.

It was agreed that the standard shoring selection form should be incorporated into the special provision. There is no reason to include pay quantities on this form; this form is simply used to notify Soils and Foundations personnel as to which shoring design is used for each project. Mr. Lambert suggested that a complete description of shoring location be included on this form, including stations and offsets.

Mr. Kreider explained that the Contractor may use the smaller embedment depth values of the “No Water Table” condition if it can be clearly demonstrated that the water table does not lie above the bottom of the embedment depth. Otherwise the values for the “Water Table” condition must be used.

3. *Guardrail Details and Implementation*

Mr. Rochelle announced that the details for the new guardrail transition section for approach slabs were complete and that they would be implemented beginning with the January 2002 letting. These details will be used for each bridge with New Jersey barrier rail. Mr. Rountree explained that there will be very few exceptions made to this policy.

4. *Jetting and Environmental Impact*

Mr. Hancock solicited help from Contractors that typically jet piles. Recently, projects have been delayed due to the recent restriction on jetting imposed by the Division of Water Quality (DWQ). The restriction predominantly applies in the those areas deemed to be “Outstanding Water Resources.” As jetting is rather common east of I-95, a committee is being formed to help address and hopefully mitigate the concerns of the DWQ. Mr. Jenkins suggested that Richard Holhouser and Greg Nelson be contacted to participate. Additionally, research at NCSU is proposed to address the environmental impact of jetting piles.

5. *Shear Stud Update*

Mr. Jenkins stated that John Johnson, Deputy Commissioner in the Department of Labor, has verbally approved an exception to the requirement for field shear stud

welding provided that fall protection is still used for heights greater than six feet. Mr. Jenkins distributed an email sent to the Department of Labor requesting that this exception be provided in writing, so that all contractors and fabricators are alerted to the intended exception.

6. *Other*

i. *Anchor Bolt Submittals*

Mr. Burns inquired as to the need for anchor bolt submittals on prestressed girders. These submittals are no longer required as stated by the plans. Fabricators should be able to ship these bolts to the Contractor without any type of shop drawing approval.

ii. *New Committee Member*

Mr. Jenkins stated that Mr. Richard Holhouser of Sanford will be replacing Greg Nelson on the committee.

iii. *Next Meeting*

The next meeting is scheduled for November 28th at 10:00 am in the Structure Design Unit Conference Room C.